

Title (en)

METHOD FOR MODIFYING THE FLANKS OF A TOOTH OF A GEAR WHEEL WITH THE AID OF A TOOL

Title (de)

VERFAHREN ZUM MODIFIZIEREN DER FLANKEN EINES ZAHNS EINES ZAHNRADS MIT HILFE EINES WERKZEUGS

Title (fr)

PROCÉDÉ POUR MODIFIER LES FLANCS D'UNE DENT D'UNE ROUE DENTÉE À L'AIDE D'UN OUTIL

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Application

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Priority

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Abstract (en)

[origin: CA2884723A1] The invention relates to a method for modifying the geometry of gear wheel tooth flanks using a tool having a toothing that engages with the gear wheel (ZR) during precision machining. In this case, a profile that varies over the width (Bw) of the tool (1) is produced on the tool (1) in that, during a dressing operation, a dressing wheel (3) is moved along the tooth flank (5) of the tooth (6) to be dressed. The width of the teeth (16) of the dressing wheel (3) is much smaller than the width (Bw) of the tool (1). Therefore, in order to pass over the width (Bw) of the tool (1), it must be moved by a length (L) corresponding to a multiple of the width (BA) of the teeth (16) of the dressing wheel (3). After dressing, the precision machining of the gear wheel (ZR) using the tool (1) takes place. Since, in the process, the dressing wheel (3) is moved with a changing pitch and a changing crossed axes angle (S) with respect to the tool (1), the modification of the tooth flank geometry can be transferred to the tool (1). During the subsequent precision machining, a modification of the crossed axes angle (S) takes place during the machining process, said modification being dependent on the helix angle of the tool (1), with the helix angle of the tool (1) being compensated, said helix angle changing over the width of the teeth (16) of the tool.

IPC 8 full level

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